REMARKS

Favorable reconsideration is respectfully requested in view of the foregoing amendments and the following remarks.

I. CLAIM STATUS AND AMENDMENTS

Claims 2-10 were pending in this application when last examined and stand rejected.

Claims 6, 7 and 8 are amended. Support for the amendment to claim 6 can be found on page 11, line 14, of the specification as filed.

Claim 5 is cancelled without prejudice or disclaimer thereto.

No new matter has been added.

II. INDEFINITENESS REJECTION

In item 3 on page 2 of the Office Action, claims 2-10 were rejected under 35 U.S.C. § 112, second paragraph, as indefinite for the phrase "average molecular weight".

Applicants note that "average molecular weight" is defined on page 8, lines 21-24 of the specification. In particular, this term is defined as the number average molecular weight measured by gel permeation chromatography.

Thus, Applicants respectfully contend that this term is not indefinite and therefore this rejection is untenable.

III. ANTICIPATION/OBVIOUSNESS REJECTIONS

On pages 5-6 of the Office Action, claims 5-6 and 9 were rejected under 35 U.S.C. § 102(b) as anticipated by Hartman et al. (US 4,171,413). Further, on pages 6-7, claims 2-4 and 10 were rejected under 35 U.S.C. § 103(a) as obvious over Hartman et al. Applicants sincerely thank the Examiner for clarifying that claim 2 was included in this rejection in a telephone conversation with Applicants' representative on May 1, 2008. Finally, on page 8-9, claims 7 and 8 were rejected under 35 U.S.C. § 103(a) as obvious over Abe et al. (JP 62-072742) in view of Hartman et al.

Applicants respectfully traverse these rejections as applied to the remaining amended claims.

As noted on page 3, lines 13-27 and page 3, line 24 to page 4, line 15, of the specification, the claimed crosslinking agent or curing agent for resins and the claimed polyacrylic hydrazides are not specifically disclosed in the prior art. These passages from the specification are recited below.

> "As set forth above, the polyacrylic hydrazides described in patent literature 1 have an average molecular weight in the wide range of 2,580 to 25,800,000, and the working examples show only two kinds of polyacrylic hydrazides having two extremes of average molecular weight, namely about 7,250 and about 2,900,000.
>
> The present applicant has filed many patent applications relating to polyacrylic hydrazides (e.g. cf. patent literature 2-13).
>
> Patent literature 2 to 6, however, disclose polyacrylic hydrazides having an average molecular weight of 10,000 to 13,000; patent literature 7 discloses polyacrylic hydrazides having an average molecular weight of 45,000 and 200,000; patent literature 8 to 11 disclose polyacrylic hydrazides having an average molecular weight of 45,000, 300,000 to 310,000 and 5,000,000; and patent literature 12 and 13 disclose polyacrylic hydrazides having an average molecular weight of 40,000, and 200,000 to 500,000 but none of these patent documents disclose polyacrylic hydrazides having an average molecular weight of 20,000 to 30,000, and 50,000 to 150,000.
>
> An object of the invention is to provide a crosslinking agent or a curing agent for resins, the agent containing as an active component a polyacrylic hydrazide having a narrowly specifically limited average molecular weight which is not disclosed in the prior art documents.
>
> Another object of the invention is to provide a novel polyacrylic hydrazide having a specific average molecular weight which is not disclosed in the prior art documents."

Thus, Applicants respectfully contend that the claimed invention is not obvious in light of the prior art.

Furthermore, in regard to Hartman et al., this reference recites on column 3, lines 18-26 that the molecular weight of the addition polymer is 3,000 to 300,000 (very broad) and no value is recited in the examples of Hartman et al. Thus, Hartman et al. does not disclose a crosslinking agent or a curing agent for resins containing a polyacrylic hydrazide having a narrowly specifically limited average molecular weight, as claimed.

Furthermore, Abe et al describes reaction of polyacrylamide having a molecular weight of 30000 to 40000 with an aqueous solution of hydrazine hydrate to prepare aminated polyacrylamide having hydrazine-derived units of 75 mole %. According to the Applicants' calculation, this aminated polyacrylamide has a molecular weight of 34754 to 46338.

Thus, Applicants note that neither of these references specifically disclose each and every element of the claimed invention. Furthermore, Applicants contend neither of these references suggest the claimed invention because they fail to suggest the importance of the claimed average molecular weight, hydrazide conversion ratio, and the number of hydrazide groups on one

polyacrylic hydrazide molecule for satisfactory water resistance, acid resistance and alkali resistance. For example, referring to Table 1 on page 24 of the specification, resin composition 9, which corresponds to the aminated polyacrylamide of Abe et al. with a molecular weight of 45,000, has inferior water resistance. Further, referring to Table 1, resin composition 4 which incorporates polyacrylic hydrazide having a molecular weight of 10,000 is inferior in water resistance.

On the other hand, resin compositions 2, 3, 5, 6 and 10-12, correspond to the claimed invention. Such compositions have an unexpected property of superior water resistance. Thus, Applicants respectfully contend that the cited references fail to teach or suggest the claimed invention. Therefore, the above-noted rejections are untenable and should be withdrawn.

CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is in condition for allowance and early notice to that effect is hereby requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact the undersigned attorney at the telephone number below.

Respectfully submitted,

Yoshinobu ABE et al.

By: _____

William R. Schmidt, II
Registration No. 58,327
Attorney for Applicants

WRS/lc
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
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